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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DR. MARK M. FRIEDMAN

C/O BILL POLKINGHORN - DISCOVERY DISPATCH

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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT

PAPER NUMBER

2416

NOTIFICATION DATE

DELIVERY MODE

04/15/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/525,745	Applicant(s) HARAN ET AL.	
	Examiner PHUONGCHAU BA NGUYEN	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 10-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 5-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Claims 10–16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant's election of claims 1–9 (group 1) in the reply filed on 6–12–8 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The requirement is still deemed proper and is therefore made FINAL.

2. This application contains claims 10–16 drawn to an invention nonelected without traverse in the reply filed on 6–12–8. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections – 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1 and 6–8 are rejected under 35 U.S.C. 102(e) as being anticipated by Kramer (6,546,014).

Regarding claim 1,

Kramer (6,546,014) discloses a method for registration of multiple entities belonging to a specific optical network unit (ONU) of a passive optical

network that also includes an optical line terminal (OLT) (see figures 1–8), the method comprising the steps of:

- a. checking, by the OLT, if a registration request message (402–fig.4) received from the specific ONU (i.e., onu–1) belongs to a certain grant (i.e., authorized active onu–1 or unknown onu, emphasis added); and
- b. based on said checking, deciding, by the OLT, to register an entity (i.e., additional data) associated with the registration request (402–fig.4) as an entity of said specific ONU (i.e., onu–1) selected from the group consisting of a first entity (authorized data) and an additional entity (additional data to onu–1 at current reading, emphasis added).

Regarding claim 6,

Kramer discloses a method for registration of multiple entities belonging to a specific optical network unit (ONU), of a passive optical network that also includes an optical line terminal (OLT) (see figures 1–9), the method comprising the steps of:

a. checking, by the OLT, of a flags field (404–fig.4), residing inside a registration request message (402–fig.4) received from the specific ONU (onu–1, fig.4); and

b. based on said checking, deciding, by the OLT, to register an entity (additional data to be transmitted at the current reading, i.e., additional of 3100 bytes) associated with the registration request (402–fig.4) as an entity of said specific ONU (onu–1, fig.4) selected from the group consisting of a first entity (authorized data) and an additional entity (additional data to the authorized data).

Regarding claim 7, Kramer further discloses wherein said step of checking includes checking if the flags field (404–fig.4) marks an additional registration (additional data 3100 bytes to authorized data 1200bytes, see col.8, line 19).

Regarding claim 8, Kramer further discloses wherein said mark of an additional registration (404–fig.4) includes a newly defined reserved value (i.e., 4300bytes), and wherein said step of deciding includes concluding that said

entity is said additional entity of said specific ONU (onu-1, see col.8, lines 19).

Claim Rejections – 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2–4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kramer as applied to claim 1 above, and further in view of Sutherland (US 2003/0177216A1).

Regarding claim 2, Kramer does not explicitly disclose wherein said certain grant is selected from the group consisting of a discovery grant and a normal grant. However, in the same field of endeavor, Sutherland discloses ONU storing a registry bit that indicates whether or not OLT has discovered the ONU, see 0047–0050. Therefore, it would have been obvious to an artisan at the

time of the invention was made to apply Sutherland's teaching of ONU storing a registry bit to Kramer's system to request any undiscovered ONUs to identify themselves with the motivation being to prevent the registered ONU from responding to future ID request messages from OLT in discovery loop.

Regarding claim 3, Kramer further discloses wherein said step of deciding includes deciding to register said entity (3100 bytes, col.8, line 19) as said additional entity if said grant is a normal grant (from the authorized onu-1, see fig.4).

Regarding claim 4, Kramer does not explicitly disclose wherein said step of deciding includes deciding to register said entity as said first entity if said grant is a discovery grant. However, in the same field of endeavor, Sutherland discloses ONU storing a registry bit that indicates whether or not OLT has discovered the ONU, see 0047-0050. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Sutherland's teaching of storing the registry bit to Kramer's system to indicate whether the OLT had

discovered the ONUs with the motivation being to fasten the registration process from new ONUs (i.e., ONU-2 with registry bit set to cleared as not discovered by OLT yet) to OLT in discovery loop.

Allowable Subject Matter

7. Claims 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 1-29-9 have been fully considered but they are not persuasive.

A/. Applicant argued that the Request 402-fig.4 in Kramer is not a registration request message because Kramer does not deal with registration and/or auto discovery protocol of the ONUs in the network at all.

In reply, applicant is directed to figs.1A-1B wherein ONUs 104, 106, 108 utilized a time division multiplex access (TDMA) protocol, in which specific

transmission time slot are dedicated to individual ONUs; thus this is registration/granting protocol, because without being dedicated/assigned authorization to access to a particular time slot, the ONU could not transmit at the specific time slot, which might be assigned to other ONUs—emphasis added, see col.1, lines 59–67. Also, applicant is directed to figure 4 wherein the OLT control message 402 referred to here as a REQUEST message, col.7, lines 18–32. The REQUEST message 402—fig.4 includes WS field 406 indicating the current bytes of data waiting in the buffer of a particular ONU, in other word, The ONU sent the REQUEST message having the WS field 406 for requesting a GRANT to transmit current data to OLT, i.e., 4300 bytes—emphasis added, see also col.8, lines 16–19 wherein the additional entity is 3100 bytes at the ONU requesting for permission to transmit to the OLT—emphasis added. Also see figure 12, step 1206 wherein the OLT transmitted GRANT messages to ONUs; step 1212 wherein OLT received REQUEST messages from ONUs for authorizing to transmit the additional entity (i.e., 3100 bytes at ONU-1), thus it would have been inherently implied that the next GRANT message in response to the REQUEST for transmitting the additional entity (i.e., 3100 bytes) would follow in

reference to figure 12 authorization method of granting. Note that applicant admitted in the first paragraph on page 7 of remarks that Kramer serves as a control message for reporting the ONU FIFO location in the specific allocated grant (ONU requested for permission to transmit the specific entity-emphasis added) so that the OLT will know how to allocate the next GRANT to this ONU.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONGCHAU BA NGUYEN whose telephone number is (571)272-3148. The examiner can normally be reached on Monday-Friday from 9:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUONGCHAU BA NGUYEN/
Examiner, Art Unit 2416

/Ricky Ngo/
Supervisory Patent Examiner,
Art Unit 2416